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CLAIMS

1. In a heat exchanger having a front and a back, a plurality
of spaced rows of flattened tubes from front to back and defining aligned
tube runs in each row, and fins abutted to adjacent tube runs in each row
and extending from front to back so that each fin is common to each of
said rows and having heat flow interrupters in each fin at a location in the
space between the aligned tube runs in each row, the improvement where-
in each said heat flow interrupter is defined by a slit extending completely
through the fin and is characterized by the absence of the removal of any
material of which the fin is made at the slit.

2. The heat exchanger of claim 1 wherein the edges of the
slit are displaced from the remainder of the fin.

3. The heat exchanger of claim 2 wherein the edges of the
slit extend at an acute angle to said remainder of the fin.

4. The heat exchanger of claim 3 wherein the edges of each
slit are displaced in opposite directions from said remainder of the fin to
said acute angle.

5. The heat exchanger of claim 2 wherein the edges of each
slit are displaced into offset, spaced planes.

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6. The heat exchanger of claim 1 wherein the slits in each fin defining said heat flow interrupter in each fin are separated by short joining sections and the edges of each slit are spaced from one another by deforming said joining sections.

7. The heat exchanger of claim 6 wherein said joining sections are thinner than the remainder of said fins.

8. In a heat exchanger having a front and a back, a plurality of spaced rows of flattened tubes from front to back and defining aligned tube runs in each row, and serpentine fins abutted to adjacent tube runs in each row and extending from front to back so that each fin is common to each of said rows and having heat flow interrupters in each fin at a location in the space between the aligned tube runs in each row, the improvement wherein each said heat flow interrupter is defined by a slit extending completely through the fin and is characterized by the absence of the removal of any material of which the fin is made at the slit, the aligned ones of said tube runs being connected in hydraulic series.

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2 9. In a heat exchanger having a front and a back, a plurality
of spaced rows of flattened tubes from front to back and defining aligned
4 tube runs in each row, and serpentine fins abutted to adjacent tube runs
in each row and extending from front to back so that each fin is common
6 to each of said rows and having heat flow interrupters in each fin at a
location in the space between the aligned tube runs in each row, the
improvement wherein each said heat flow interrupter is defined by a slit
8 extending completely through the fin and is characterized by the absence
of the removal of any material of which the fin is made at the slit, said slit
10 having parallel edges displaced in opposite directions from a remainder of
the fin.

2 10. The heat exchanger of claim 9 wherein the edges of the
slit are displaced from the remainder of the fin.

2 11. In a heat exchanger having a front and a back, a plurality
of spaced rows of flattened tubes from front to back and defining aligned
4 tube runs in each row, and serpentine fins abutted to adjacent tube runs
in each row and extending from front to back so that each fin is common
6 to each of said rows and having heat flow interrupters in each fin at a
location in the space between the aligned tube runs in each row, the
improvement wherein each said heat flow interrupter is defined by a slit
8 extending completely through the fin and is characterized by the absence
of the removal of any material of which the fin is made at the slit, said slit
10 having edges displaced into offset, spaced planes.

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12. In a heat exchanger having a front and a back, a plurality of spaced rows of flattened tubes from front to back and defining aligned tube runs in each row, and serpentine fins abutted to adjacent tube runs in each row and extending from front to back so that each fin is common to each of said rows and having heat flow interrupters in each fin at a location in the space between the aligned tube runs in each row, the improvement wherein each said heat flow interrupter is defined by a slit extending completely through the fin and is characterized by the absence of the removal of any material of which the fin is made at the slit, said slits having edges with the slits in each fin defining said heat flow interrupter in each fin are separated by short joining sections and the edges of each slit are spaced from one another by deforming said joining sections.

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13. In a refrigeration system containing a transcritical refrigerant, a compressor for compressing the refrigerant, an evaporator connected to an inlet of the compressor and for evaporating the refrigerant, and a gas cooler for receiving compressed refrigerant from the compressor, cooling the same and discharging the cooled refrigerant to the evaporator, the improvement wherein the gas cooler comprises a heat exchanger having a front and a back, a plurality of spaced rows of flattened tubes from front to back and defining aligned tube runs in each row, and serpentine fins abutted to adjacent tube runs in each row and extending from front to back so that each fin is common to each of said rows and having heat flow interrupters in each fin at a location in the space between the aligned tube runs in each row, the improvement wherein each said heat flow interrupter is defined by a slit extending completely through the fin and is characterized by the absence of the removal of any material of which the fin is made at the slit.

14. The heat exchanger of claim 13 wherein the edges of the slit are displaced from the remainder of the fin.

15. The heat exchanger of claim 14 wherein the edges of the slit extend at an acute angle to said remainder of the fin.

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2 16. The heat exchanger of claim 15 wherein the edges of each slit are displaced in opposite directions from said remainder of the fin to said acute angle.

2 17. The heat exchanger of claim 14 wherein the edges of each slit are displaced into offset, spaced planes.

2 18. The heat exchanger of claim 13 wherein the slits in each fin defining said heat flow interrupter in each fin are separated by short joining sections and the edges of each slit are spaced from one another by deforming said joining sections.

2 19. The heat exchanger of claim 18 wherein said joining sections are thinner than the remainder of said fins.

2 20. The refrigeration system of claim 13 wherein said system is a heat pump system wherein said evaporator is also a gas cooler and said gas cooler is also an evaporator.

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